## **PATENT**

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

10/652,868

Filing Date:

August 29, 2003

Applicant:

Jarrah

Group Art Unit:

3746

Examiner:

To Be Assigned

Title:

**COMPRESSOR SURGE PREVENTION** 

VIA DISTINCT BLADE SHAPES

**Attorney Docket:** 

8540G-000214 (GP-303513)

Director of the United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

## **INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

## I. <u>LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION</u>

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

#### II. COPIES

A. Submitted herewith is a legible copy of (i) each U.S. patent application publication and U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; (iii) for each cited pending U.S. application, the application specification including the claims, and any drawing of the application which caused it to be listed including the claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

	1449 or on the copies of PTO-899 previously cited by or submitted to which has been relied upon for an or	2, but which are no the PTO in one o	ot enclosed here following a	with, were pplications
	U.S. Serial Number	U.S. F	iling Date	
	C. Because the present applications of the U.S. patents or U.S. pon the attached Form 1449 are en 1.98(a)(2)(i). Any foreign patent do attached Form 1449 are enclosed by	patent application p nclosed pursuant to ocuments or non-pa	ublications whice the waiver of 3	n are listed 7 C.F.R. §
	D. This is a PCT application in States. A copy of the International information. The documents listed on the attached Form 1449 for coany patent resulting from this appl was from the US, EPO, or JPO should have been supplied to the Us believed to be in the file of the above	Search Report is a on the International nsideration by the E ication. Since the earch authorities, of JSPTO under the tr	attached for the al Search Repor Examiner and fo International Sec copies of these rilateral agreeme	Examiner's tare listed r listing on arch report references ent and are
III.	CONCISE EXPLANATION OF THE	ERELEVANCE (che	eck <u>at least</u> one	oox)
	A.   Except as may be indicated other information are in the English			
	B. A concise explanation of the information listed that is not in the § 1.98(a)(3)):	relevance of each English language is	patent, publicati s as follows (see	on or other 37 C.F.R.
	1. See the attached for counterpart foreign application	reign patent office on:	e communication	on from a
	2. English translations are	e provided:		
	3.   Other:			
	C. The following additional iconsideration.	nformation is prov	vided for the I	Examiner's

IV.	CROSS REFERENCE TO RELATED APPLICATION(S)					
	A.  The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does (do) not waive the confidentiality provisions of 35 U.S.C. § 122.					
	Serial No.	Filing Date	Art Unit			
V.	THIS IDS IS BEING FIL	_ED UNDER				
	A. X 37 C.F.R. § 1.97(b): (check only one box)					
	1.  within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.					
		n an international applic	entry of the national stage ation (37 C.F.R. § 1.97(b)(2			
		mailing of a first Office fee or certification is requ	Action on the merits (37 C. uired.	F.R. §		
			Action after the filing of a reR. § 1.114. No fee or certifi			
	B.					
	before the mailir 1.113, a Notice otherwise closes	of Allowance under 37	al Office Action under 37 C. C.F.R. § 1.311, or an actio	F.R. § on that		
	1.  No certification No Certification No.		the amount of \$180.00 is re	quired		
	2. See the ce	rtification below. No fee	is required.			
	C = 37 C F R & 1 97/	'd)·				

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee. 1. See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p). VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box) The undersigned hereby certifies that: A. a each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII. if applicable; or B. In o item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37) C.F.R. § 1.97(e)(2)). C.  $\square$  some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS. VII. STATEMENT UNDER 37 C.F.R. 1.704(d) The undersigned hereby states that: each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

## VI. PAYMENT OF FEES (check only one box)

A. A check in the amount of \$180.00 is enclosed for the above identified fee.

B.  $\square$  Please charge Deposit Account No. 07-0960 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 07-0960.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 07-0960.

Respectfully submitted,

Dated: \_ / - 2 - 0 4

Linda M. Deschere

Reg. No. 34,811

Harness, Dickey & Pierce, P.L.C. P.O. Box 828 Bloomfield Hills, Michigan 48303 (248) 641-1600

LDES/dr



M HDP-1449 (Based on Form PTO-1449)

# PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Sheet 1 of 1

SERIAL NO.
10/652,868
GROUP
3746

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.						

FORE	FOREIGN PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No .
1.							

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)				
Ref. Desig.	Examiner's Initials			
1.		Dresser-Rand; Isopac Compressor Impeller Upgrade; "Driving down operating costs by increasing compressor efficiency" (2000-2003); pages 1-2		
2.		Clean Dry Air, Inc.; Centrifugal Air Compressor Surge; "What word strikes fear in the heart of centrifugal compressor operators? SURGE!" (08/2000); pages 1-4		
3.		Compressor Surge; "Dissection of Surge in a High Speed Centrifugal Compressor Using Digital PIV"; Mark P. Wernet and Michelle Bright; (01/1999); pages 1-2		

Examiner:	Date Considered: